

**STATE FOREST LAND
ENVIRONMENTAL CHECKLIST**

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at <http://www.dnr.wa.gov> under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable: **Timber Sale Name: NANEUM HIGH Agreement #:30-072999**
2. Name of applicant: **Department of Natural Resources**
3. Address and phone number of applicant and contact person: **John Haddon, 713 Bowers Road, Ellensburg, WA 98926 (509) 925-8510**
4. Date checklist prepared: **10/06/2003, Revised 09/13/04**
5. Agency requesting checklist: **Department of Natural Resources**
6. Proposed timing or schedule (including phasing, if applicable):
 - a. Auction Date: **Winter 2005**
 - b. Planned contract end date (but may be extended): **Summer 2006**
 - c. Phasing: **None.**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. **No**

Timber Sale

- a. Site preparation: **Some soil disturbance may occur during timber harvest operations.**
- b. Regeneration Method: **The proposal area will be fully stocked at the completion of the timber harvest.**
- c. Vegetation Management: **None are planned at this time, however, the area will be assessed post harvest, and any vegetation management needed will be done according to Department policies.**
- d. Thinning: **Area will be assessed following harvest.**

Roads: The following roads will be utilized for this proposal: N-1000, N-1050, and Spur 1. All roads are existing roads with the exception of one new spur that is needed for Unit #2. There will be no existing road reconstruction, 435 feet of new construction and 435 feet of abandonment. There will also be 5710 feet of pre-haul maintenance on the N-1050 road.

Rock Pits and/or Sale: None

Other: None

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

- ☐ 303 (d) – listed water body in WAU: ☐ temp ☐ sediment ☐ completed TMDL (total maximum daily load):
- ☐ Landscape plan:
- ☒ Watershed analysis: **Naneum Watershed Analysis (December 1993)**

- ☐ Interdisciplinary team (ID Team) report:

☒ Road design plan:

☒ Wildlife report:

☐ Geotechnical report:

☒ Other specialist report(s): **Archaeological report**

☐ Memorandum of understanding (sportsmen’s groups, neighborhood associations, tribes, etc.):

☐ Rock pit plan:

☒ Other: **a) Forest Resource Plan: Environmental Impact Statement (EIS) adopted July 31, 1992; b) State Soil Survey; c) DNR Habitat Conservation Plan (HCP), adopted January 30, 1997; d) A road maintenance and abandonment plan prepared by a professional engineer.**

1. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.
None known.

10. List any government approvals or permits that will be needed for your proposal, if known.

☐ HPA ☒ Burning permit ☐ Shoreline permit ☒ Incidental take permit ☒ FPA # **2703048** ☐ Other:

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. Complete proposal description: **The proposal is located in Kittitas County, approximately 16 miles northeast of Ellensburg. The proposal contains two timber harvest units that total 115 acres, with an estimated 1,241 mbf of timber that will be removed. The topography of the units varies from relatively flat benches to steeper slopes on portions of the proposal area. Both ground based and cable harvest systems will be utilized.**

The original proposal contained five harvest units and considered approximately 350 acres for timber harvest. However, after careful consideration 235 acres were deleted from the proposal to protect an endangered species. The harvest will concentrate on reducing stocking levels and leaving healthy larger overstory trees scattered throughout the units that will maintain the late seral ponderosa pine component within the proposal area.

b. Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives. **The overall unit objective for both proposed timber harvest units is to improve the health and vigor of the stand by managing for appropriate stocking levels, while maintaining current structural diversity and species composition. The proposal area is located in the Yakima Planning Unit of the DNR’s HCP and is designated No Role.**

Unit #1 (65.3 acres): This unit contains both grand fir and Douglas-fir plant associations mixed throughout the stand. This area was previously harvested in the 1940’s and 1950’s removing most of the larger diameter trees. The southern portion of the unit is composed primarily of ponderosa pine with a slight Douglas-fir component. The northern portion of the unit is comprised primarily of Douglas-fir with some ponderosa pine, larch and grand fir scattered throughout. There are also dispersed pockets of quaking aspen where moisture is more available. The Douglas-fir trees in this area are heavily infested with Dwarf mistletoe. The young regeneration is a mixture of Douglas-fir, grand fir, ponderosa pine, and larch (approximately 100 to 150 trees per acre). According to DNR Inventory data, the primary age class for this unit ranges from 76 years or older, with the southeast portion of the unit being 51 to 75 years of age in places. There are scattered throughout remnant trees greater than 160 years in age. Pre-harvest stand assessment plot data shows that there are approximately 161 trees per acre that are 8 inches or greater in diameter, with approximately 3.4 of the ponderosa pine trees per acre being greater than 24 inches dbh. The silvicultural prescription for this unit is to leave the largest 10 trees per acre as legacy trees with an additional 5-10 trees per acre across the diameter classes that are the healthiest and have the best form. According to leave tree plot data, approximately 95 percent of the largest ponderosa pine (24 inches dbh or greater) will remain in the unit after the completion of the harvest. Leave tree plot data also shows that approximately 16 trees per acre with an average dbh of 19.9 inches will be left at the completion of harvest along with approximately 100 trees per acre that are less than 10 inches dbh (where existing). This unit will be fully stocked at the completion of harvest and will be assessed for future silvicultural activities (i.e. planting, pre-commercial thinning, etc.) at a later date.

Unit #2 (49.4 acres): This unit contains the Douglas-fir plant association and the stand is a mixture of ponderosa pine and Douglas-fir, with minor amounts of grand fir and larch scattered throughout. This area was previously harvested in the 1940’s and 1950’s removing most of the larger diameter trees. There are small pockets of quaking aspen dispersed on the western portion of the unit in the moister, cooler areas. The Douglas-fir trees are infected with Dwarf mistletoe in portions of the unit. The young regeneration consists primarily of Douglas-fir, ponderosa pine with a few grand fir dispersed throughout the unit (approximately 100 to 150 trees per acre). According to DNR Inventory data, the primary age class for this unit 76 years or older. Pre-harvest stand assessment plot data shows that there are approximately 196 trees per acre that are 8 inches or greater in diameter, with approximately 2.2 of the ponderosa pine trees per acre being greater than 24 inches dbh. The silvicultural prescription for this unit is to leave the largest 7 trees per acre as legacy trees with an additional 18-23 trees per acre across the diameter classes that are the healthiest and have the best form. According to leave tree plot data, approximately 95 percent of the largest ponderosa pine (24 inches dbh or greater) will remain in the unit after the completion of the harvest. Leave tree plot data also shows that approximately 27 trees per acre with an average dbh of 18.5 inches will be left at the completion of harvest along with approximately 100 trees per acre that are less than 10 inches dbh (where existing). This unit will be fully stocked at the completion of harvest and will be assessed for future silvicultural activities (i.e. planting, pre-commercial thinning, etc.) at a later date.

Of the trees being harvested, on average one tree per acre may be 160+ years old.

c. Road activity summary. See also forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		435	.12	0
Reconstruction		0		0
Abandonment		435	.12	0
Bridge Install/Replace				0
Culvert Install/Replace (fish)				0
Culvert Install/Replace (no fish)				

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. (See timber sale map. See also color landscape/WAU map on the DNR website <http://www.dnr.wa.gov> under “SEPA Center.”)
- a. Legal description: **Parts of Section 34, Township 20 North, Range 19 East, W.M.**
- b. Distance and direction from nearest town (include road names): **The proposal is located approximately 16 miles northeast of Ellensburg and can be accessed by way of the Vantage Highway, the Naneum county road, N-1000, and the N-1050 Road.**
- c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website <http://www.dnr.wa.gov> under “SEPA Center.”)

WAU Name	WAU Acres	Proposal Acres
NANEUM	54170	115

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website <http://www.dnr.wa.gov> under “SEPA Center” for a broader landscape perspective.)

This proposal is located in the Naneum WAU, which currently has a checkered board ownership pattern on the eastern portion of the WAU. The primary landowners in the WAU are the DNR (13,122 acres or 24% of the WAU), private industrial forests (18,017 acres or 33% of the WAU), and the USFS (19,657 acres or 36% of the WAU). The Washington State Department of Fish and Wildlife owns a few sections in the northern portion of the WAU near Naneum Ridge (3,374 acres or 6% of the WAU). The proposal area is surrounded on all four sides by a private industrial forest landowner, which has had several regeneration, partial cuts and thinning operations completed over the past 20 to 30 years.

According to the DNR’S GIS Forest Practice Application (FPA) database, as of September 17, 2004, there has been a total of 5,694 acres approved within the past 7 years in the Naneum WAU. Of these approved FPA’s approximately 964 acres were even-aged harvest, 5787 acres of uneven-aged harvests, and 229 acres of salvage. On DNR land 497 acres were evenage harvest and 440 acres were unevenage harvest.

The original proposal contained five harvest units and considered approximately 350 acres for timber harvest. However, after careful consideration 235 acres were deleted from the proposal to protect an endangered.

Future activities currently planned within this WAU on DNR Land includes a timber sale proposal that would occur on approximately 350 acres and a proposal to plant approximately 60 acres of a logged timber sale in Spring 2005.

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (check one):
- ☐Flat, ☒Rolling, ☐Hilly, ☐Steep Slopes, ☐Mountainous, ☐Other:
- 1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).**The Naneum WAU consists of 59 % forested lands and 41% of non-forested or other forested lands that do not meet the requirements of immature, moderate mature, or mature forests. Approximately 45% (14,319 acres) of the total forested lands are considered mature forest and the majority of the WAU is a mixed-aged stand. The terrain is typically rolling with steeper slopes and benches on the north side of ridges. The annual average precipitation for the WAU ranges between 15 to 25 inches and elevations range from 2399 feet to 6820 feet. The major timber types consist of ponderosa pine and Douglas-fir with larch and grand fir present in the higher elevations. Open areas of grasses intermixed with forbs and occasional basalt rock outcroppings are typically found throughout the WAU.**
- 2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).
There are no visible differences.
- b. What is the steepest slope on the site (approximate percent slope)?
- 65% slope on 20% of the sale area.**
- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
4309	STONY LOAM	0-25	63	LOW	MEDIUM
4312	STONY LOAM	45-65	34	MEDIUM	HIGH
4311	STONY LOAM	25-45	18	LOW	MEDIUM

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

- 1) **Surface indications: Yes. A Watershed Analysis was completed for the Naneum WAU in December of 1993. Maps created from DNR GIS data indicates that the proposal area has moderate potential for hillslope erosion and low hazard potential for road surface erosion to occur. A field assessment of the sale area shows no indications of unstable soils or failures. A field assessment of the sale area shows no indications of unstable slopes within the proposal area.**
- 2) *Is there evidence of natural slope failures in the sub-basin(s)?*
☐No ☒Yes, type of failures (shallow vs. deep-seated) and failure site characteristics: **Yes. Small slope failures may occur in the draws during high water runoff periods.**
- 3) *Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?*
☒No ☐Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:
Associated management activity: **None that are known in the immediate vicinity of the proposal. However there is some evidence associated with roads higher in the Naneum Basin.**
- 4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*
☒No ☐Yes, describe similarities between the conditions and activities on these sites:
- 5) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*

All of the listed protection measures are consistent with the surface erosion prescriptions as recommended in the Watershed Analysis for the Naneum WAU:

- a. **No ground based equipment will be allowed to operate on slopes greater than 35% slope.**
- b. **All timber sale boundaries have been placed away from areas of potential for unstable slopes to occur.**
- c. **Skid trail and cable corridor locations will be approved by the Contract Administrator prior to use and all skid trails will be water barred as needed to direct runoff to the forest floor.**
- d. **A professional engineer has reviewed all roads in the proposal.**
- e. **Use of existing roads with minimal new construction to limit the potential for road erosion and compaction.**
- f. **Erosion will be minimized by active road maintenance including installing and maintaining drainage structures.**
- g. **Road construction and timber haul will be restricted to dry or frozen soil conditions.**
- h. **Spur 1 will be abandoned at the completion of harvest and the road surfaces will be ripped, undrivable water bars will be installed, and all cut and fill slopes, as well as the road surface will be grass seeded and fertilized to control erosion.**
- i. **Certified weed free grass seeding and fertilizing will occur at the completion of the sale per the Road Plan.**

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Approx. acreage new roads: 0.12 acres Approx. acreage new landings: 1-2 acres Fill source: N/A

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. **Minor erosion may occur on disturbed surfaces during seasonal snowmelt and spring runoff.**

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):* **None.**

h. Propose measures to reduce or control erosion, or other impacts to the earth, if any (*Include protection measures for minimizing compaction or rutting.*): **SEE B.1.d.5**

2. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust from truck traffic, rock mining, crushing or hauling, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known. **Minor amounts of exhaust and road dust will be created during the operation. Smoke would occur if the slash piles are burned but only for a short duration.**
- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. **No.**
- c. Proposed measures to reduce or control emissions or other impacts to air, if any: **Any slash pile burning will be done with accordance to the DNR Smoke Management Rules. Should the Contract Administrator or the Region Engineer determine during operations that the amount of dust created by haul needs to be mitigated, the Purchaser could be required to abate the dust.**

3. Water

a. Surface:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (*See timber sale map and forest practice base maps.*)
There are two unnamed Type 4 streams and one unnamed Type 5 stream in Unit #2. All of these streams flow to the west and are tributaries to a Type 1 stream (Naneum Creek). Naneum Creek runs through the middle of the section, to the west of the proposal area and eventually flows into the Yakima River. There is also a natural spring located between Unit #1 and Unit #2 that has created a seasonal wet area. This area is approximately ¼ acre in size and is comprised primarily of quaking aspen with grasses and forbs that are indigenous when moisture is present.

a) *Downstream water bodies:* **Naneum Creek**

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Unnamed Stream	Type 4	2	50
Unnamed Stream	Type 5	1	30

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.
The stream channel on the Type 5 water has been protected with a 30 foot buffer on both sides, limiting equipment. The Type 4 streams will have 50 foot no entry buffers on both sides of the channels. All timber sale boundaries have been placed greater than 300 feet from Naneum Creek. The seasonal wet area has been protected by placing timber sale boundary tags 50’ away from the area. No equipment or harvest will be allowed within the seasonal wet area.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.
☐No ☒Yes (See RMZ/WMZ table above and timber sale map.)
Description (include culverts): **Falling and skidding will occur within 200 feet of the described waters and directional falling will take place. All skidding and yarding of logs will occur away from stream channels and stream crossings will be approved by the Contract Administrator prior to use.**
- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
None.
- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. (Include diversions for fish-passage culvert installation.)
☒No ☐Yes, description:
- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☒No ☐Yes, describe location:
- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
☒No ☐Yes, type and volume:
- 7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water? **Sub-basin information is unavailable for Eastern Washington WAU’s. However, DNR GIS data maps for the WAU shows that there is a potential for medium to high erosion to occur during extreme weather events and during high water periods. The potential for eroded material would occur mainly in the stream beds.**
- 8) Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?
☒No ☐Yes, describe changes and possible causes:
- 9) Could this proposal affect water quality based on the answers to the questions 1-8 above?
☒No ☐Yes, explain:
- 10) What are the approximate road miles per square mile in the WAU and sub-basin(s)? **The are approximately 2.2 road miles per square mile within the Naneum WAU.**

Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☒No ☐Yes, describe:

- 11) Is the proposal within a significant rain-on-snow (ROS) zone? If not, **STOP HERE** and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.
☐No ☒Yes, approximate percent of WAU in significant ROS zone. **Approximately 9% of the WAU is located in the ROS Zone. The proposal is located within the ROS Zone.**
Approximate percent of sub-basin(s): **Sub-basin information is unavailable for Eastern Washington WAU’s.**
- 12) If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?
Approximately 45% of the WAU.
- 13) Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?
☒No ☐Yes, describe observations:
- 14) Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.
There is no visual evidence within the WAU that this proposal will contribute or impact the peak flow. Water flows may increase slightly during low periods due to decreased transpiration and interception.
- 15) Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?
☒No ☐Yes, possible impacts:

- 16) Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.
SEE B.1.d.5 and B.3.a.1.c

b. Ground Water:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
No.
- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
None.
- 3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☒ **No** ☐ *Yes, describe:*
 - a) *Note protection measures, if any.* **N/A**

c. Water Runoff (including storm water):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.
Storm water and seasonal snow melt on the road surface will be channeled through cross drains, culverts, and water bars to dissipate on to the forest floor.
- 2) Could waste materials enter ground or surface waters? If so, generally describe.
None into ground or surface water
 - a) *Note protection measures, if any.* **None.**

- d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)
SEE B.1.d.5

4. Plants

a. Check or circle types of vegetation found on the site:

- ☒ deciduous tree: ☐ alder, ☐ maple, ☒ aspen, ☐ cottonwood, ☒ western larch, ☐ birch, ☐ other:
☒ evergreen tree: ☒ Douglas fir, ☒ grand fir, ☐ Pacific silver fir, ☒ ponderosa pine, ☐ lodgepole pine,
 ☐ western hemlock, ☐ mountain hemlock, ☐ Englemann spruce, ☐ Sitka spruce,
 ☐ red cedar, ☐ yellow cedar, ☐ other:
☒ shrubs: ☐ huckleberry, ☐ salmonberry, ☐ salal, ☒ other: *Oregon grape, rosehip, and ocean spray.*
☒ grass
☐ pasture
☐ crop or grain
☐ wet soil plants: ☐ cattail, ☐ buttercup, ☐ bullrush, ☐ skunk cabbage, ☐ devil's club, ☐ other:
☐ water plants: ☐ water lily, ☐ eelgrass, ☐ milfoil, ☐ other:
☐ other types of vegetation:
☐ plant communities of concern:

- b. What kind and amount of vegetation will be removed or altered? *(See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)*

- 1) *Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: <http://www.dnr.wa.gov> under "SEPA Center.")*
The timber types immediately adjacent to both units on DNR ownership are similar in species composition and age to the proposal area. These timber types are primarily a mixture of ponderosa pine and Douglas-fir, ranging in age from seedling to mature timber between 100 to 160+ years old. On the private property north and south of the proposal, the primary age class for the adjacent timber types is 51 to 75 years of age. The structural diversity of the timber types immediately adjacent to the proposal area varies from some large structure remaining to minimal amounts of large structure remaining. The adjacent timber types are owned by an industrial forest landowner and have been managed for timber production.
- 2) *Retention tree plan:*
In Unit #1, the largest 10 trees per acre have been left as legacy trees and will provide structural diversity over the entire unit. These larger leave trees have a variety of different structure characteristics differing from healthy crop trees to some decay or deformities within the bole of the leave tree. An additional 5 to 10 trees per acre across the diameter classes (ranging from 10 to 24 inches dbh) that are the healthiest and have the best form will also remain in the unit after harvest. Variable plot data taken after the unit was marked shows that the average DBH of the leave trees within this unit is approximately 19.9 inches. In addition to leaving the larger overstory trees, approximately 100 trees per acre that are less than 10 inches dbh will remain in portions of the unit upon completion of the harvest. The species composition of the retention trees is primarily ponderosa pine with some Douglas-fir and western larch scattered throughout.

In Unit #2, the largest 7 trees per acre have been left as legacy trees and will provide structural diversity over the entire unit. These larger leave trees have a variety of different structure characteristics differing from healthy crop trees to some decay or deformities within the bole of the leave tree. An additional 18 to 23 trees per acre across the diameter classes (ranging from 10 to 24 inches dbh) that are the healthiest and

have the best form will also remain in the unit after harvest. Variable plot data taken after the unit was marked shows that the average DBH of the leave trees within this unit is approximately 18.5 inches. In addition to leaving the larger overstory trees, approximately 100 trees per acre that are less than 10 inches dbh will remain in the portions of the unit upon completion of the harvest. The species composition of the retention trees is a mixture of approximately 75 % ponderosa pine and approximately 25% Douglas-fir spread across the unit.

The leave trees include wildlife reserve trees and green recruitment trees that have been left scattered within the units and have been marked with orange paint. These trees are also identified as the leave trees mentioned above and have been counted as such. The WRT's and GRT's have been chosen based on the following characteristics: overall crown size, wildlife value, DBH size, dwarf mistletoe rating of less than 3, and overall tree health. Snags will also be left where operationally possible, however, if these snags need to be felled for safety reason they will remain on the ground for large woody debris.

- c. List threatened or endangered *plant* species known to be on or near the site. **None known.**
- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: **The largest 7 to 10 ponderosa pine trees per acre have been left in the units to preserve the late seral pine characteristics of this timber type. There are also small patches of quaking aspen dispersed throughout the units in moister, cooler areas and no trees will be harvested within these patches.**

5. Animal

- a. Circle or check any birds animals or unique habitats which have been observed on or near the site or are known to be on or - near the site:

birds: ☒hawk, ☐heron, ☒eagle, ☒songbirds, ☐pigeon, ☒other: wild turkeys
mammals: ☒deer, ☒bear, ☒elk, ☐beaver, ☒other: cougar
fish: ☐bass, ☐salmon, ☒trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐talus slopes, ☐caves, ☐cliffs, ☐oak woodlands, ☐balds, ☐mineral springs

- b. List any threatened or endangered species known to be on or near the site (include federal- and state-listed species).
There is a Northern Spotted Owl (#733-High Creek-Naneum Creek, status 1) located ¾ mile from the sale boundary. Another sale unit was dropped from the sale due to its close proximity to the nest site. This property is designated as no role under the HCP.
- c. Is the site part of a migration route? If so, explain.
☒Pacific flyway ☐Other migration route: Explain if any boxes checked: **Although part of the Pacific flyway, this area is not used by migrating waterfowl.**
- d. Proposed measures to preserve or enhance wildlife, if any:

1) Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.

Species /Habitat: Northern Spotted Owl
Protection Measures: This proposal is located in the Yakima Planning Unit of the DNR's HCP and is designated as No Role land. However, the proposal is located within the 1.8 mile radius of a Status 1 Spotted Owl circle. The original proposal contained an additional unit located in the northwest portion of Section 34. After a field visit and discussions with the WDFW, the DNR made the decision to defer harvest in that unit. The decision was made based on the proximity of the unit to the nest site, the unit timber types, and the structural diversity of the stand. Both units within this proposal area are located across the drainage to the east of the occupied nest site and the timber type characteristics of these units are generally not suitable for spotted owl habitat. An additional field visit with the Yakama Nation Wildlife Biologist was made to the site to review the prescription and marking.

Species /Habitat: Multiple Species
Protection Measures: Wildlife recruitment trees and green recruitment trees have been left scattered throughout the proposal area. These trees are a mix of ponderosa pine and Douglas-fir that are greater than 20 inches in DBH. All snags will be left in the units where operationally feasible and if the snags are felled for safety reasons they will remain on the ground to add to the down woody debris component. A seasonal wet area between the units has been bounded outside of the timber sale and equipment will not be allowed to operate in this area. In addition, there are small patches of quaking aspen dispersed throughout the units in moister, cooler areas and no trees will be harvested within these patches.

6. Energy and Natural Resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. **None.**
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. **No.**
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: **Does Not Apply.**

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. **None.**

- 1) Describe special emergency services that might be required.
The area covered by the proposal pays forest patrol assessment to the DNR for wildfire suppression.
 - 2) Proposed measures to reduce or control environmental health hazards, if any:
Does Not Apply.
- b. Noise
- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
None.
 - 2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.
Road building, logging equipment, and log trucks will create some noise during working hours while the proposal is operationally active.
 - 3) Proposed measures to reduce or control noise impacts, if any: **None planned.**

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties? (*Site includes the complete proposal, e.g. rock pits and access roads.*) **Timber Production**
- b. Has the site been used for agriculture? If so, describe. **Yes, for woodland grazing of livestock.**
- c. Describe any structures on the site. **None.**
- d. Will any structures be demolished? If so, what? **Does Not Apply.**
- e. What is the current zoning classification of the site? **Forestry.**
- f. What is the current comprehensive plan designation of the site? **Forestry.**
- g. If applicable, what is the current shoreline master program designation of the site? **N/A**
- h. Has any part of the site been classified as an “environmentally sensitive” area? If so, specify. **No.**
- i. Approximately how many people would reside or work in the completed project? **None.**
- j. Approximately how many people would the completed project displace? **Does Not Apply.**
- k. Proposed measures to avoid or reduce displacement impacts, if any: **Does Not Apply.**
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
Long term forest management will continue in accordance with DNR policies and guidelines.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
None.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
None.
- c. Proposed measures to reduce or control housing impacts, if any:
None.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?
Does Not Apply.
- b. What views in the immediate vicinity would be altered or obstructed?
This proposal is a partial cut harvest and there will be very minimal visual impact to the surrounding vicinity.
 - 1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*
☒ **No** ☐ *Yes, viewing location:*
 - 2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*
☒ **No** ☐ *Yes, scenic corridor name:*
 - 3) *How will this proposal affect any views described in 1) or 2) above?*
Does Not Apply.
- c. Proposed measures to reduce or control aesthetic impacts, if any: **None required.**

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur? **Does Not Apply.**
- b. Could light or glare from the finished project be a safety hazard or interfere with views? **Does Not Apply.**
- c. What existing off-site sources of light or glare may affect your proposal? **Does Not Apply.**

- d. Proposed measures to reduce or control light and glare impacts, if any: **Does Not Apply.**

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?
The proposal area is gated at both entry points and can only be accessed by foot, horse, or mountain bike. The recreational opportunities are: hunting, fishing, hiking, bird watching, mountain biking, horseback riding and cross-country skiing.
- b. Would the proposed project displace any existing recreational uses? If so, describe:
Some disruption to the recreational users may occur during harvest operations. However, the recreational opportunities mentioned above would resume after the proposal operations are completed.
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
None.

13. Historic and Cultural Preservation

- a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
None are known at this time.
- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
SEE B.13.a
- c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)
Should any cultural resources be identified within the proposal area during the harvest operations the work will cease in that area and a professional archaeologist will be notified immediately. At that time, a protection plan will be developed by the archaeologist.

14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.
Interstate 90, Kittitas Highway, Vantage Highway, and the Naneum Road.
- 1) *Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?*
There will be some temporary increase in log truck traffic and possible dust during the operational period.
- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
No.
- c. How many parking spaces would the completed project have? How many would the project eliminate?
None.
- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).
Yes. There will be one additional spur road that will be created with this proposal. The new spur will be abandoned at the completion of harvest activities. All existing forest roads will be used for the purpose of forest management activities and will be maintained as necessary.
- 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*
This proposal will minimally impact the overall transportation system.
- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No.
- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.
There could possibly be anywhere from 2 to 10 loads of logs hauled each day during the actual harvest operations on the roads mentioned in B.14.a.
- g. Proposed measures to reduce or control transportation impacts, if any:
Signs will be posted on roads to inform the public of log truck traffic.

15. Public Services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
No.
- b. Proposed measures to reduce or control direct impacts on public services, if any.
Does Not Apply.

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.
Does Not Apply.

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
N/A.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Proposed by:	<div>ERIN HAGGARD, District Forester</div>	Date:	<div></div>
Reviewed by:	<div>KEN McNAMEE, District Manager</div>	Date:	<div></div>
	<div>JOHN HADDON, Management Forester</div>	Date:	<div></div>
Approved by:	<div>GEORGE B. SHELTON, Assistant Region Manager</div>	Date:	<div></div>